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Remarks

Entry of the above-noted amendments, reconsideration of the application, and allowance of all claims pending are respectfully requested. The amendments to the claims constitute a bona fide attempt by applicants to advance prosecution of the application and obtain allowance of certain claims, and are in no way meant to acquiesce to the substance of the rejections. Claims 1-17 will be pending after entry of the amendments.

Claim Rejection - 35 U.S.C. §102:

Claims 1-13 were rejected under 35 U.S.C. §102 as being anticipated by Hamanaka (U.S. Patent No. 5,500,523). This rejection is respectfully traversed.

It is well-settled that there is no anticipation unless (1) all the same elements are (2) found in exactly the same situation and (3) are united in the same way to (4) perform the identical function. Since the applied reference is missing at least one element of each of applicants' independent claims, applicants respectfully submit that the claimed invention is not anticipated by the applied reference, as further discussed below. For explanatory purposes, applicants discuss herein one or more differences between the applied reference and the claimed invention with reference to one or more parts of the applied reference. This discussion, however, is in no way meant to acquiesce in any characterization that one or more parts of the applied reference correspond to the claimed invention. Applicants respectfully submit that the Office Action's citations to the applied reference do not teach or suggest one or more elements of the claimed invention. For example, it is apparent that the insertion or removal of a board in Hamanaka as shown in its FIGs. 1-5 (relied upon in support of the rejection) will cause an interruption of the light beam being carried through the motherboard 20 during the installation or removal of the board.

Claim 1 is directed to a processing unit where communications among the processing units is effected by a free space beam line. The processing unit includes an aperture for passing the beam line and is configured to permit installation and removal of the processing unit without blocking the beam line. A means is provided in each aperture for receiving optically encoded

signals from the beam line after installation. Reference may be made to figures 11-12 of the subject application for illustrative, but not limiting, examples.

Referring to figure 11, a frame 322 is to be installed beside frame 300 by moving it from right to left as shown in the figure. An aperture 322 in frame 320 is disposed to engage beam line 10 in the installed position. A movable portion 352 of conduit 324 swings out of the way as does a cover 356 to allow the installation of frame 320 in position to engage the beam line 10 so that no portion of beam line 10 is obstructed during the installation.

Referring to figure 12, a board 412 is shown in an uninstalled position, with installation being accomplished by moving the board from right to left as shown in figure. Two apertures 470 are disposed along the edge of board 412 and are configured to substantially surround beam lines 242 in the installed position; see board 410 which is in the installed position. Optic transducers 460 are disposed in the apertures to engage and assist in optic communications with the light beams 242. It will be apparent that during installation or removal of the boards as shown in figure 12 that no portion of the light beams 242 are obstructed at any time.

In claim 1, the aperture in the processing unit is defined as being configured to permit installation and removal of the processing unit without blocking the beam line. In the office action, claim 1 was rejected as being anticipated by Hamanaka with regard to figures 2 and 4. Please refer to figure 2 that shows a side view of the circuit board 11. Please note the cross-hatching indicating circuit board 11 extends both above and below the window area 11a through which light beam A passes. Refer to figure 4 where such a circuit board is shown above motherboard 20 in a position ready to be installed by seating the circuit board down into the corresponding slot in the motherboard. The small optic windows 31, 32 in the circuit board are completely enclosed by the main substrate of the circuit board as well as being enclosed by other layers of material. It is believed to be apparent to one of ordinary skill in the art based on the teachings of Hamanaka that the insertion or removal of a circuit board as disclosed in Hamanaka will cause a blockage, i.e. a disruption, of the light beams passing through the slots in the motherboard. That is, the installation or removal of any one board will cause a disruption of the light beam to all of the other boards operating on the motherboard. Such a teaching does not

anticipate the processing unit as defined in claim 1 in which the recited aperture is configured to permit installation and removal without blocking the light beam. Therefore, withdrawal of the rejection of claim 1 is requested.

Claim 5 defines the processing unit as comprising a board and defines that the receiving means is movable relative to the board. Figures 2 and 4 of Hamanaka show a board that has no movable portions relative to the board itself. Hence, claim 5 is not anticipated by this reference.

Claim 6 defines the processing unit as comprising a board and defined state transmitting means as being movable relative to the board. Figures 2 and 4 of Hamanaka show a board that has no movable portions. Hence, claim 6 is not anticipated by this reference.

Claims 9 and 10 are similar to claims 5 and 6, and hence are not anticipated for similar reasons explained with regard to claims 5 and 6.

Independent method claim 11 defines a method for installing and removing processing units wherein communications among the processing units is effected by a free space beam line. An aperture is provided in the processing units. The processing units are installed so that the beam line passes through the aperture so as not to block the beam line during the step of installing. As explained above with regard to claim 1, the Hamanaka reference discloses a board having a configuration that will cause a disruption of optical beam lines carried through the motherboard upon the insertion of such a board into its corresponding slot in the motherboard. Thus, Hamanaka does not anticipate the method of claim 11.

Claim 12 describes a moving a movable portion of the processing unit out of a way of the beam line during installation, and replacing it after installation. No such teaching is found in Hamanaka.

New claims 14-17 are presented for consideration. It is believed that these claims are directed to allowable subject matter in view of the teaching of Hamanaka for reasons explained above.

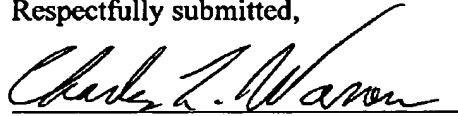
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Pursuant to MPEP 706.07(c), it would be inappropriate to make the next Office Action final should new references or grounds be applied in support of a rejection of any of the claims not amended by applicant since no change of position with regard to unamended claims could have been caused by applicant.

In view of the above amendments and remarks, allowance of all claims pending is respectfully requested. If a telephone conference would be of assistance in advancing the prosecution of this application, the Examiner is invited to call applicants' attorney.

Respectfully submitted,



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